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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/722,783

11/26/2003

John O'Connell

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EXAMINER

STULII, VERA

ART UNIT

PAPER NUMBER

1761

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE -
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3 MONTHS

03/01/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/722,783

Applicant(s)

O'CONNELL, JOHN

Examiner

Vera Stulii

Art Unit

1761

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>03/22/04 03/15/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Objections***

Claims 6, 7, 16, 20, 21, 23-24 are objected to because of the following informalities: the period is missing in the end of the claims. Claim 27 is objected to because of the following informalities: word nitrogen is misspelled. Appropriate correction is required.

In claim 5 the phrase "the foam maintaining system of the liquid beverage comprising" should read as "the foam maintaining system of the liquid beverage comprises". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-4 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for beverages with octenylsuccinic acid modified starch foam-maintaining system, does not reasonably provide enablement for every foaming beverage. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims. A number of factors must be considered in assessing the enablement of an invention, including the following: the breadth of the claims, the amount of experimentation necessary, the guidance provided in the

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specification, working examples provided, predictability, and the state of the art. See *In re Wands*, 858 F.2d 731, 8 USPQ2d 1400 (Fed. Circ. 1988). The specification does not disclose components of foam-maintaining systems other than based on octenylsuccinic acid modified starch. While the specifications and claims 1-4 provide broad, general outline regarding "foaming beverage products" and "organoleptically acceptable foam-maintaining system", the specification does not provide sufficient teaching for one skilled in the art, toward where such systems might be found. This would require an undue amount of experimentation for the skilled artisan, far beyond the enablement provided in the instant specification.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 22 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In regard to claim 22 the phrase "is predominantly a monoester" renders the claim indefinite. It is not clear whether predominantly stands for majority or more than 50%.

Regarding claims 1 and 27, the phrase "organoleptically acceptable foam-maintaining system" renders the claims indefinite. It is not clear what is "organoleptically acceptable foam-maintaining system".

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***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**Claims 1-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zeller et al (6,168,819) in view of Kaper et al (US 6,024,996).**

Zeller et al disclose a creamer/whitener that is particularly suitable for foaming creaming compositions. Zeller et al discloses that the creamer when added to coffee beverage produces a large amount of creamy and semi-solid foam. Zeller et al disclose addition of emulsifiers such as a modified starch or a surfactant commonly added to creamers (Col. 5 lines 66-67). In regard to claims 1-12 and 27-28, Zeller et al also disclose that "a preferred modified starch component is a water-soluble emulsion-stabilizing lipophilic food starch such as N-Creamer-46 starch (National Starch and Chemical Company)" (i.e. octenylsuccinic acid modified starch) (Col. 6 lines 5-7). Zeller

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et al also disclose that octenylsuccinic acid modified starch is in an amount of about 5 to 20% by weight of the creamer (Col. 6 lines 8-9). In regard to claims 5, 13-19 and 27-28, Zeller et al also disclose that "the preferred surfactant is a high HLB emulsifier, such as sodium stearyl lactylate or polysorbate" (Col. 6 lines 9-11). In regard to claims 20 and 21, Zeller et al discloses that whey protein component of the creamer "can be obtained from any source of whey protein, but is preferably obtained from a whey protein concentrate or a whey protein isolate" (Col. 2 lines 50-53). In regard to claim 20, Zeller et al also discloses that "whey protein concentrate (WPC) powder is prepared from liquid whole milk " (Col. 2 lines 54-55). In regard to claim 21, Zeller et al discloses that "whey protein isolate (WPI), on the other hand, is WPC from which a greater amount of lactose has been removed by ultrafiltration (Col. 2 lines 60-63).

Zeller et al do not disclose packaged beverage, nitrogen atmosphere, specific formula of octenylsuccinic acid, range of molar substitution of octenylsuccinic acid groups, molecular weight and amount of the octenylsuccinic acid modified starch, acyl lactylate salt acyl moiety, and amount of acyl lactylate salt.

Kaper et al disclose a carbonated coffee beverage which has been packaged under pressure in a pressure-resistant closed container in the presence of carbon dioxide and nitrogen (Abstract). Kaper et al disclose that coffee becomes creamier and less sharp when packaged in the closed container in presence of nitrogen (Col. 1 lines 54-56). Kaper et al disclose that the beverage could be supplemented with milk, milk products or so-called whiteners (Col. 2 lines 1-5). Kaper et al disclose that "the mutual proportions of the various components of the coffee beverage can be chosen fairly

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broadly, the eventual composition being partly dependent on the desired taste of the coffee drink" (Col. 2 lines 10-13). In regard to a gas pressure in the head space recitation, Kaper et al disclose that "the amount of gas in the container (carbon dioxide and nitrogen) is chosen such that the pressure in the package is minimally at the level required for the strength of the package. A conventional pressure at room temperature is between 1.01 and 7.0 bar" (Col. 2 lines 13-20). Kaper et al disclose foaming or effervescent coffee. In regard to "organoleptically acceptable foam-maintaining system" recitation, Kaper et al disclose good and predictable foaming behavior by adding foam inhibiting agent (Col. 2 lines 33-37).

Since Zeller et al disclose a creamer/whitener that is particularly suitable for foaming creaming compositions being added to coffee beverages to produces a large amount of creamy and semi-solid foam, and Kaper et al disclose foaming or effervescent packaged coffee beverages, it would have been obvious to one of the ordinary skill in the art to employ creamer/whitener disclosed by Zeller et al in the packaged coffee beverage disclosed by Kaper et al in order to produce ready-to-drink packaged coffee beverage having improved foaming properties such as large amount of creamy and semi-solid foam taught by Zeller et al. It is noted that N-Creamer-46 is a prefreed starch disclosed by applicant on page 5 of the specification. Since Zeller et al already meets the limitation of claim 5 by teaching N-Creamer-46 starch (octenylsuccinic acid modified starch) as recited, this also meets limitations of claims 1-4 and claims 6-10. The octenylsuccinic acid modified starch as disclosed would have been expected to have the same properties as claimed in the absence of clear and

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convincing evidence to the contrary. Since Zeller et al already meets the limitation of claim 5 by teaching sodium stearyl lactylate, this also meets limitations of claims 13-15. The sodium stearyl lactylate as disclosed would have been expected to have the same properties as claimed in the absence of clear and convincing evidence to the contrary. Since Kaper et al disclose that "the mutual proportions of the various components of the coffee beverage can be chosen fairly broadly, the eventual composition being partly dependent on the desired taste of the coffee drink", it would have been obvious to one of the ordinary skill in the art at the time the invention was made to vary amounts of octenylsuccinic acid modified starch and sodium stearyl lactylate in the total amount of beverage in order to achieve desired taste of the coffee drink as taught by Kaper et al. Claims 22-26 provide a recitation of the properties of a sucrose ester. However, these claims do not specifically require the presence of the sucrose ester within the composition of claim 5 from which they depend, but rather merely further describe one of the options as stated in claim 5. In other words, claims 22-26 modify the option of the sucrose ester recited in claim 5, but do not specifically or directly require the sucrose ester. Since Zeller et al already meets the limitations of claim 5 by teaching the sodium stearyl lactylate, this also meets the limitations of claims 22-26 which do not specifically require that the surface active agent is a sucrose ester.



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**Conclusion**


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kawamoto et al disclose a beverage containing sucrose ester of a fatty acid used in specific proportions and suitable for packaged coffee beverages.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vera Stull whose telephone number is (571) 272-3221. The examiner can normally be reached on 7:00 am-3:30 pm, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on (571) 272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

vs *V. Stull*

  
**KEITH HENDRICKS**  
**PRIMARY EXAMINER**